

# Index

VOLUME 9, 1963

Index entries enclosed in quotation marks are complete titles of articles or books as they appeared in Data Processing Digest. The numbers following the alphabetized entries indicate issue and page number of the Digest in which the item is found.

- "Absorbing the Shock of Conversion to Computer," 1-2  
abstract service, 10-15  
"Accessories for the Computer," 12-24  
"Account Classification: A First Step in Automation Planning," 12-13  
accounting, 2-13  
Ackoff Russell L. and Rivett Patrick, 10-9  
Adams, Eldridge, 4-5  
Adams, Robert M., 9-2  
administrating EDP System, 10-5  
"ADP Taught in a Classroom on Wheels," 8-7  
"Advanced Data Processing in the University Library," 4-6  
"Advanced Management in Data Processing," 8-6  
"An Adventure in Planned Education," 4-13  
advertising, 11-11  
Affiliated Food Stores, 12-18  
AFIPS information bureau, 7-19  
air line EDP, 12-12  
air line reservations, 7-18  
AL PUR COM, 3-7  
Alderson, Wroe, and Stanley J. Shapiro, 7-8  
Aldom, Robert S., Alan B. Purdy, Robert T. Schneider and Harry E. Whittingham, Jr., 9-3  
Alexander's, 2-9  
ALGOL, 2-5  
"All the Eggs in One Basket--At Westinghouse," 10-2  
Allen, Layman E., 3-6  
Allis-Chalmers total system, 3-1  
Alliston, James R., 7-4  
Ambre, Ago, 10-14  
American Management Association report on PERT, 3-19  
American Society for Public Administration, 10-5  
American Standards Association, 12-7, 8, 25  
"The American Standard Code for Information Interchange," 11-15; 12-8  
American University Institute on Information Storage and Retrieval, 7-2  
Anderson, Carl, 11-11  
Andres, Roy K., 11-7  
"Annual Survey of Data Processing Salaries," 8-8; 9-4  
Appell, Allan, 11-3  
"Application of Computers in Type Composition," 10-11  
appraisal of EDP, 9-1  
Archibald, Russell D., 12-15  
Armer, Paul, 5-1; 7-8  
Armour Research Foundation, 2-15  
"Arrow Diagram The Work Connection," 1-13  
ATLAS Compiler, 3-14  
"Attitudes Toward Intelligent Machines; Part I," 5-1  
"Attitudes Toward Intelligent Machines; Part II: Soviet Progress," 7-8  
"Audio Visual Applications to Data Processing," 7-6  
audio visual catalog, 6-23  
auditing, 3-5; 11-5; 12-14  
"The Auditor's Approach to Electronic Data Processing," 12-10  
auditors for computing systems, 8-3  
Auerbach Standard EDP, 11-17  
"Automated Hospital Accounting," 11-11  
"Automatic Control Systems Can Benefit Smaller Stores, Too," 3-9  
"Automatic Document Classification," 7-3  
"Automatic Program Translation," 7-10  
automatic programing, 2-1  
"Automatic Re-Order System Used to Market Baby Shoes," 3-8  
"Automatic Selection of Digital Electronic Computers," 8-19  
automatic teaching, 5-13  
automation, 8-4  
"Automation for Administration and Management," 11-10  
"Automation in Banking," 9-3  
"Automation: New Tool for Decision Makers," 5-9  
"Automating a Hospital Information System," 5-17  
"Automating Wall Street's Paper Work," 8-14  
"Automation and the Small Bank," 8-10  
"Automation in Government," 10-5  
"Automation Speeds Mail Through St. Louis," 4-3  
"Automation: Technique, Mystique, Critique," 8-3  
Aviation Supply Office, 12-20  
"Avoid Feasibility Booby Traps," 8-7  
"Avoid Pitfalls Created by the Line-Staff Roles in EDP Group," 4-9  
"Avoiding the Pitfalls of EDP Installations," 8-7  
Avon Products, Inc., 1-2  
"B & M Computerizes Vacation Credits," 7-15  
"Bank Automation Here and Abroad," 8-9  
The Bank Computer Center of Connecticut, Inc., 2-15  
bank computer service, 10-7; 12-20  
bank computing center, 12-11  
bank co-ops, 2-15; 6-11; 11-16  
bank service for correspondents, 10-8  
bank simulation, 6-17  
bank survey, 2-15  
banking automation, 3-12, 13; 4-8; 5-5, 12; 6-11; 9-3, 6; 10-6; 11-6, 8, 9; 12-13  
banking by long distance, 5-15  
banking control manual, 6-23  
"A Bank's Approach to Real-Time," 9-6  
Barnes, P. G., 7-7  
Barra, Joseph A., 10-5  
Becker, Joseph, and R. M. Hayes, 9-11  
behavioral science, 11-16  
Bement, Ken T., 12-12  
Bemer, R. W., 11-15; 12-8  
Bendix Corp., 8-13  
Bernick, Myrna, 7-3  
Beverly Bank of Chicago, 6-11  
bibliographies, U. S. Govt., 8-19  
bibliography, 3-19; 6-5  
bibliography, computers and data processing systems, 7-19  
bibliography on EDP, 3-7  
biological Sciences, 6-5  
biomedical information systems, 11-17  
Bishop, N. A. Jr., 11-9  
Blagowidow, George, 5-9  
Bobbie Brooks, 2-8  
Bonni, Gregory M., 11-5  
Bonnar-Vawter Telepunch Data Processor, 9-9  
Borchardt, Rudolph, 9-10  
Borko, Harold, and Myrna Bernick, 7-3  
Boston & Maine car identifier, 5-15; 6-22  
Boston & Maine Railroad, 7-15  
Brabb, George J., and Earl B. Hutchins, 11-4  
Branch, Melville C., 12-15  
Brandon, Dick, 10-6; 12-7  
"Breakthrough in High School Computer Education," 10-14  
Britt, Patricia M., 11-13

- Bromberg, Howard, 2-1  
 budget forecasting, 11-10  
 budget planning, 12-18  
 Buetell, T. Dwight, 2-11  
 "Building Internal Accounting Controls," 9-9  
 Bullock, Dr. Donald, and James Rogers, 10-14  
 Bureau of the Budget, 6-22  
 Burnett, Leo ad agency, 11-11  
 Burroughs Corp., 6-15  
 Bushnell, Don D., 3-17; 5-13  
 "Business Applications Programming," 11-15  
 business curriculum, 7-11  
 "Business Data Processing & Programming," 10-12  
 business games, 1-13, 14; 2-11  
 Caffrey, Dr. John, 2-18  
 Calhoun, Everett S., 8-18  
 "California Law Enforcement Working Group Meets," 5-6  
 Camillo, P. J., 7-9  
 Campise, J. A. and Robert M. Adams, 9-2  
 Campise, J. A., 8-6; 12-5  
 "Can Systems Men and Auditors Work Together?" 10-6  
 "Canada Life Shows How to Plan an EDP Centre for Maximum Efficiency," 3-5  
 Canadian National Railway, 8-7  
 Canadian National Telecommunication, 11-7  
 Canning, Richard G., 3-2; 11-13  
 "Car Identifier Does Fast, Accurate Job," 5-15  
 car identification, 6-22  
 Carver, William W., 2-5  
 "The Case for Buying a Used Computer," 2-14  
 "The Case of the Certified Check," 4-8  
 Case, James G., 5-7  
 "A Case Study of CRAM--A New Element in Banking Automation," 11-6  
 catalog of inventory items, 7-14  
 "The Catalyst in Total Systems," 9-10  
 "The Catalytic Power of Business-Decision Gaming in Teaching Management Science," 2-11  
 cathode ray tube, 11-8  
 Catlin, Ephron, Jr., 12-20  
 certified checks, 4-8  
 "Changeover to EDP Made Without Loss of Historical Ledger Records," 3-13  
 change-over, 1-1  
 "Checklist for Computer Installation," 5-4  
 Chicago Teachers College North, 4-13  
 Chien, Dr. Gary K. L., 10-3  
 child's book on EDP, 1-12  
 Chollar, Robert G., 12-7  
 Chorafas, D. N., 1-16  
 Christian, Virgil L. Jr., 10-8  
 Cier, Lee O., 11-15  
 Citizens & Southern National Bank, 11-9  
 city government EDP, 11-10  
 City of New Haven, 11-10  
 Civil Service EDP plan, 4-10  
 Clapp, Lewis C., and Huseyin Yilmaz, 9-10  
 COBOL, 2-1, 3; 3-15; 5-11; 6-21; 10-12  
 COBOL bulletin, 12-25  
 Cohn, Theodore, 3-11  
 "Codasy, Cobol & Detab-X," 5-11  
 "Comments on the Developing Structure of a National Association for Educational Data Processing Systems," 2-18  
 communication equipment, 8-18; 9-10  
 "Compact Computer Has Three-Way Benefit," 12-17  
 comparison of equipment, 12-5  
 "Compatibility of Cobol Specifications," 5-11  
 "Compilers--Where They are Today," 2-1  
 "The Computer Aids in Teaching Data Processing," 4-11  
 computer applications trends, 4-9  
 "The Computer in the Bathtub," 11-4  
 computer census, 9-4  
 "Computer Education in the Business Curriculum," 7-11  
 computer installation checklist, 5-4  
 "Computer Installation Count Up; All Sizes Register Gains," 9-4  
 computer languages, 2-1-5  
 "Computer Languages", 2-3  
 computer memory, 3-19  
 "Computer Models and Simulations in Business and Economics," 5-7  
 "The Computer Personnel Research Group," 3-3  
 computer process control, 12-8  
 "Computer Program Cuts Kresge Stock," 8-16  
 "Computer Programming and Its Value to Management," 12-10  
 computer project origination, 5-2  
 computer replacement, 6-4  
 Computer Sciences Corp., 12-19  
 computer selection, 8-1  
 computer selection of personnel, 12-16  
 computer service bureaus, 12-11, 20  
 "Computer Service for Correspondents in Three Cities," 11-8  
 "Computer Services-A Small Bank's Opportunities," 1-6  
 "Computer Simulation of Consumer Behavior," 7-17  
 "Computer Simulation of Personality: Frontier of Psychological Theory," 9-4  
 "Computer Stops Guesswork in Management Decisions," 2-8  
 computer system card catalog, 8-19  
 computer terminology, 3-19  
 "Computer Training & Education," 7-11  
 "Computer Training By Programmed Instructions," 10-14  
 "Computers Add Flexibility to Railroad Cost Finding," 9-7  
 "Computers Add to West Point Education," 12-23  
 "Computers and Data Processing Systems--An ASTIA Report Bibliography," 7-19  
 "Computers and Management Control," 9-5  
 "Computers At Your Service," 1-12  
 "Computers For the Retail Department Store," 10-9  
 "Computers Help PRR Buyers," 5-16  
 "Computers in Education," 5-13  
 computing service, 1-6, 8  
 Comress, Inc., 1-18  
 "A Consultant's Report to Management on Data Processing," 11-3  
 consumer behavior simulation, 7-17  
 Continental Illinois National Bank, 10-8  
 Continental Oil Co., 6-21  
 Contractors Put Computers To Work, 5-16  
 "Control of Maintenance Through Data Processing," 3-13; 4-6  
 "A Controlled Training Environment to Challenge the EDP Industry," 2-19  
 controller's position in EDP, 11-3  
 controls in banking, 6-23  
 controls in EDP, 3-5  
 conversion, 1-2  
 "Conversion and Installation," 1-1  
 "Conversion to a Computer," 3-11  
 "Conversion to EDP Pays As It Goes," 2-6  
 conversion problems, 8-7  
 co-operative EDP, 10-7  
 Corbin, Arnold, and George Blagowidow, 5-9  
 Cosgrove, Matthew R., 1-2  
 cost accounting with PERT, 5-7  
 cost factors in EDP, 3-4  
 "The Cost of Computer Which-Craft," 7-5  
 "Could Your Firm Use a Computer Service Bureau?" 7-7  
 coupon processing, 6-15  
 courses in EDP, 10-15  
 Cowan, Thomas A., 8-5  
 Cowperthwaite, Gordon H., 9-1  
 Coyle, R. J., and J. K. Stewart, 12-1  
 CPM, 5-8  
 CPR, 6-24  
 CRAM, 11-6  
 credit, 2-7; 6-8  
 credit control, 5-4  
 "Credit Record System," 11-10  
 credit union, 7-18; 10-9  
 Creighton, Philip, 8-8

- critical path plotting, 1-13  
CUE, 6-24  
Culbertson, Don S., 4-6  
Dale, Alfred G., 1-14  
Dankis, Victor J., 2-13  
data collection, 9-10; 12-4  
data collection systems, 2-17  
"Data Collection and Accumulation Closes the Information Processing Loop" 3-17  
"Data Collection For Business Information Processing," 5-14  
"Data Communications--Next Big Step in Data Processing," 8-18; 9-9; 10-2  
"Data Processing," 7-6  
"Data Processing, Accounting and Business Administration," 1-10  
"Data Processing and Store Insurance," 11-1  
data processing curriculum, 12-22  
"Data Processing Instruction in Secondary Schools," 5-14  
Data Processing Management Association, 7-6  
"Data Processing Systems in the Secretarial Practice Class," 12-23  
"Data Processing, Vol. VI," 10-4  
"Data Processing Yearbook," 3-19  
"Data Reporting to the Internal Revenue Service--Some Possibilities Suggested By Automation," 4-1  
data transmission, 11-7; 12-21  
data transmission equipment, 6-23  
"Datatelex," 11-7  
Datatrol, 3-9  
Data-Vault, 8-13  
Dayton Power & Light Co., 6-16  
deaf students, 4-12  
Dean, Neal J., 3-3; 7-4; 8-9, 11  
Dean, Neal J., and Dale L. Reistad, 5-5  
"A Decision Exercise in Inventory Management," 5-9  
"Decision Structure Tables--A Technique for Business Decision Making," 11-13  
decision tables, 5-11  
"Decision Theory in Law, Science, and Technology," 8-5  
Defense Logistics Services catalog, 7-14  
Defense Logistic Services Center, 4-12  
Denver Research Institute, 6-17  
department store EDP, 6-6; 10-9  
Des Moines, Iowa, Independent School District, 2-18  
Des Moines public schools, 5-14  
"Design of a Real-Time Programming System," 12-1  
design stage of ED System, 10-6  
DETAB-X, 5-11  
"Development and Implementation of a Materials Information Processing System," 12-25  
"The Development and Installation of a Total Management System," 7-6  
"Development of the Computer Market in Europe," 8-19  
"Digital Computer Technology and Design," 11-6  
"Dividend Check Processing by Computer," 3-10  
Dixie Merchandising Co., 12-19  
document classification, 7-3  
Donegan, L. E. Jr., 9-8  
DPMA Certificate exam, 10-15  
DPMA certification of prison course, 10-18  
DPMA Proceedings, 10-4  
"Dual Computers Give Instant Reservations," 7-18  
Duphorne, Robert, 4-8  
Duvall, Clyde, 3-10  
Eckert, James B., 12-13  
"Easing the Route to Retrieval with Permuted Indexes," 7-2  
East Hartford Aircraft Employees Federal Credit Union, 10-9  
"East-North--A System for Standardizing Locations," 9-15  
"Economics of On Line Vs Off Line Data Systems," 9-3  
"EDP Analyzer," 3-2  
EDP Analyzer, 11-13  
"An EDP Application That Gives Information Plus," 1-5  
"EDP Breaks the Sound Barrier," 4-12  
"EDP Can't Do It All," 9-8  
"EDP: How to Ride the Tiger," 11-3  
EDP industry summary, 11-16  
EDP management, 4-9  
"EDP Programming for Security Analysis," 12-19  
"An EDP Service For Correspondent Banks," 10-8  
"EDP Sharpens Radio and TV Time Buying," 11-11  
"An EDP System for Installment Loan Accounting," 8-15  
education, 3-17; 10-14; 11-17; 12-22, 23  
education by computers, 5-13  
education for EDP, 5-14  
"Education, Sociology & EDP," 8-4  
Educational Data Processing Newsletter, 4-12  
educational EDP organization, 2-18  
"Electronic Business Data Processing," 10-5  
"Electronic Business Systems," 1-12  
"Electronic Computers and Management Organization," 11-4  
"Electronic Data Processing and the Smaller Store," 11-10  
"Electronics For The Smaller Bank," 1-8  
"The Emerging Trends in Bank Automation," 12-13  
employee vacation credits, 7-15  
Entelek Inc., 4-12  
Enters, William H., and Norman Statland, 8-14  
EPAM, 6-20  
equipment, 12-24  
equipment comparison, 12-5  
Equipment design, 11-6  
equipment for retail stores, 8-18  
"Esquire Turns Free Time to Fee Time," 9-7  
European computer market, 8-19  
European EDP, 11-5  
evaluation of equipment, 12-5  
"Evidence and Problems of Proof in a Computerized Society," 10-8  
Executive Sciences Institute, 10-15  
FACT, 2-1  
factoring EDP, 6-11  
Fair, R. R., 5-2  
faster computers, 8-9  
Fazar, Willard, 3-16  
feasibility problems, 8-7  
feasibility studies, 11-4  
"Feasibility Studies: How They Pave Your Way to MDP," 3-5  
Field, John, 9-3  
Film on computers, 6-23  
fingerprint searching, 6-24  
"Fire, Man's Ancient Enemy, Can Strike the Computer Room," 2-16  
fire prevention, 8-13  
"The First Co-operative Bank Computer Center," 2-15  
First National Bank of Boston, 12-11, 20  
First National Bank of Denver, 11-8  
"First National Revisited," 12-11  
First Wisconsin National Bank, 11-9  
forms design, 3-6  
Forms and Systems, 8-20  
FORTRAN, 2-3  
Fox, E. C., 12-8  
Freed, Roy N., 8-6; 10-8  
Freedhoff, Stephen H., 12-10  
Freedman, Walter S., 2-9  
freight scheduling system, 12-5  
Fulton, Dr. Roger L., 11-8  
future applications, 3-3  
"Future of Electronic Data Processing," 3-3; 8-11  
Galler, Bernard A., 1-16  
gaming, 2-11  
Garrity, John T., 9-2; 11-3  
GATE System, 8-15  
G. E. management analysis system, 5-3  
General Dynamics/Convair, 7-14  
General Services Administration, 12-12  
"A General Simulation Capability," 3-16  
General Telephone & Electronics, 6-22  
"Generalized Information Retrieval and Listing System," 2-11  
"A Generalized Real Time System," 12-5  
Gerber, T. L., 3-6  
Gibbs, Martha, and Eldridge Adams, 4-5  
Gift Stars, Inc., 6-15  
Gildersleeve, T. R., 10-1  
GIRLS, 2-11  
Glazier, Gene, 3-12  
Glossary, 6-22  
glossary for NAREC, 4-12

- "Glossary of Computer Terminology," 3-19  
 Golden, Larry, 1-1  
 Golub, Harvey, 12-5  
 Gotterer, Malcolm H., 9-5  
 Government ADP, 10-5; 12-12  
 government policies on lease or buy, 10-8  
 "The Government's Role in the Computer Revolution," 8-6  
 Grand Auto Stores, 11-10  
 Great Britain EDP, 6-6, 16, 24; 10-11; 12-23  
 Great Britain Railroads, 6-14  
 Greene, Richard M. Jr., 11-3  
 Gregory Robert H., & Richard L. Van Horn, 10-12  
 Greybourne, L. R., 12-16  
 grocery supplier, 12-18  
 Gross Leonard D. and Ellis P. Myer, 5-17  
 Gruenberger, Fred, 7-11  
 "Guideposts to Follow in Considering and Selecting Electronic Data Processing," 11-3  
 Hagen, Charles L., 8-15  
 Harbaugh, Raymond E., 3-11  
 Harker, W. A., 7-6  
 Harmon, Robert L., 1-8  
 "Has Your Loan Office Met Your Computer?" 7-15  
 Haskins, M. E. Jr., 4-9  
 "The Hatfield Conference on Computer Education," 12-23  
 Hattery, Dr. Lowell H., and Edward M. McCormick, 7-2  
 Hayes, R. M., 9-11  
 Head, R. V., 5-10  
 Hearn, Cormack P., 11-14  
 Hebert, Leon D., 12-11  
 Heiliger, Edward M., 4-6  
 Her Majesty Underwear Co., 1-4  
 high school EDP course, 5-14  
 high school programming courses, 10-14  
 high speed printing, 12-24  
 Hoffman, Paul S., 7-15  
 Homme, Lloyd E., Robert E. Willey and William H. McMahan, 8-17  
 Hoos, Ida R., 9-5  
 hospital accounting, 11-11  
 hospital EDP, 2-18; 8-16, 20  
 hospital information system, 5-17  
 hospital mechanization, 7-7  
 "How Alexander's Flash-Reports Item Sales Data Overnight," 2-9  
 "How are Our Schools Teaching Data Processing?" 12-22  
 "How A Bank Operates Its Own Service Center," 10-7  
 "How Bendix Uses EDP to Save," 8-13  
 "How a Computer Decides Items and Quantities of Merchandise to be Shipped," 11-9  
 "How Computer Systems Will Work For Tomorrow's Retail Management," 5-4  
 "How One Company Organized for Electronic Data Processing," 10-5  
 "How the Milwaukee Analyzes Its Traffic," 4-2  
 "How to Break the Programming Bottleneck," 10-13  
 "How to Plan For Bank Automation Services," 5-5  
 "Howard, R. L., 11-12  
 Hulse, A. J., 3-10  
 Hutchins, Earl B., 11-4  
 IASA computer Survey, 11-3  
 IBM 1440, 1-17  
 IBM purchasing system, 7-13  
 IBM 7090 programming manual, 7-11  
 "Ideas for Management," 10-4  
 IMPACT, 9-8  
 "Impact of Electronic Data Processing on Auditing," 11-5  
 "Impact of Electronic Data Processing Upon Auditing Procedures," 3-5  
 "The Impact of Non-Impact Printing," 12-24  
 "Impact of Office Automation in the Internal Revenue Service," 7-4  
 income tax, 4-1  
 income tax preparation, 3-11  
 index of EDP articles, 3-7  
 indexing, 7-2, 3  
 Indiana Reformatory, 2-19; 10-18  
 Indiana Reformatory EDP system, 10-13  
 information clearinghouse, 12-25  
 information display, 12-15  
 "Information Economics and Management Systems," 11-5  
 Information Interchange, 11-15  
 information-processing, 11-4  
 Information Processing Journal, 8-19  
 information retrieval, 2-11; 4-4; 6-17, 19, 24; 10-10; 11-17  
 "Information Retrieval," 7-1  
 "Information Retrieval Management," 3-19; 7-2  
 "Information Retrieval Systems and Education," 3-17  
 "Information Storage and Retrieval," 9-11  
 "Information Storage and Retrieval: A Survey," 12-25  
 information systems, 7-4; 11-5, 17  
 "Inmate Statistical Program," 10-13  
 input data accuracy, 11-14  
 "Input Language for Automatic Programming Systems," 7-19  
 input techniques, 11-8  
 installation, 1-1  
 installment loan accounting, 8-15  
 "Instant Money," 11-12  
 insurance, 6-14; 12-11, 21  
 insurance company computers, 11-3  
 insurance for EDP systems, 11-1  
 "Integrated Information Systems and Management," 12-11  
 intelligent machines, 5-1  
 internal control, 3-14  
 "Internal Control With A Computer," 1-11  
 Internal Revenue Service, 4-1; 7-4  
 International Abstracts in Operations Research, 1-18  
 International Computation Centre, 4-11  
 International Systems Meeting, 10-4  
 "Introduction to Symbolic Programming," 7-19  
 inventory control, 2-8; 3-8; 5-16; 6-23; 8-16; 12-18  
 inventory management game, 5-9  
 inventory of EDP equipment, 10-8  
 inventory record, 7-14  
 investment counselling, 6-12  
 investment in EDP, 9-2  
 Iowa School for the Deaf, 4-12  
 Irving Bank and Trust Co., 3-12  
 "Is COBOL Ushering in a New EDP Era?" 3-15  
 itineraries by computer, 12-25  
 Jensen, Cdr. Harold B., 12-20  
 "Jetliners, Catalogs and Tape," 7-14  
 job counselling, 7-7  
 job descriptions, 1-11  
 job performance, 3-3  
 job survey in Rochester, 4-7  
 John's Bargain Stores, 11-9  
 Johnson, Charles H., 8-3  
 Jones-Rich Milk Corp., 12-21  
 Joplin, H. Bruce, 3-4  
 Jurimetrics, 7-18  
 Kaiser Aluminum, 11-12  
 Kanter, Jerome, 10-6  
 Kavanagh, T. F., 11-13  
 Keener, David A., 12-18  
 Kelly, Thomas J., 3-5  
 Kent Allen, 4-4  
 King, William M., 12-18  
 Kleinmuntz, Benjamin, 8-15  
 Kodak order processing, 3-13  
 Kohn, Bernice, 1-12  
 Kornfeld, L. L., 4-8; 7-7  
 Kresge Co., S. S., 8-16  
 Kugel, Peter, 11-4  
 labor reporting, 1-5  
 Lackner, Michael R., 3-16  
 Laden, H. N., and T. R. Gildersleeve, 10-1  
 Lamb, Layton L., 2-7  
 "Language of Computers," 1-16  
 Langtry, Ethel, 6-9  
 Larson, Harry T., 8-4  
 "Latest Developments in the Field of Data Processing," 8-18  
 Lavery, Kenneth R., 5-4  
 law, 4-5; 7-3, 18; 10-8  
 law and science, 8-5  
 law enforcement EDP studies, 5-6  
 "Lawtation in Legal Research: Some Indexing Problems," 7-15  
 "Lease or Buy: Compare their Costs," 10-8  
 leasing computer time, 1-8  
 Lebedow, Aaron, 2-15  
 legal research, 7-15  
 library automation, 4-6



- Library of Congress, 12-25  
 life insurance, 5-5  
 Linasec, 10-11  
 Linke, Carl G., 11-6  
 lean processing, 7-15  
 location coding, 9-15  
 Lockheed Aircraft, 2-6  
 logic game, 3-6  
 Lombardi, Dr. Lionello A., 3-11  
 Long Distance Banking Demonstrated at Boston, 5-15  
 "Look Before You Leap Into Automation," 7-7  
 "Lower Computer System Costs Through Forms Designs," 3-6  
 Luebbert, Major William F., 12-23  
 Lueth, Wesley A., 3-14  
 machine intelligence, 5-1; 6-19  
 machine learning, 3-19  
 "Machine Translation and Automation of the Publishing Process," 3-11  
 "Machines and Languages," 2-5  
 Macy's, 6-24  
 magnetic character standards, 12-7  
 magnetic ledger cards, 3-13  
 Mahony, Joseph B., 11-8  
 mail automation, 4-3  
 mail order processing, 2-7  
 maintenance management, 6-13  
 maintenance scheduling, 3-13; 4-6  
 maintenance scheduling, 3-13; 4-6  
 "Making an Organization Study," 8-8  
 management analysis, 5-3  
 Management control systems, 9-5  
 "Management Decision Tester: Computer Used To Simulate Operations of Small Business," 1-14  
 "Management Games: An Answer to Critics," 1-13  
 Management Information Center, 6-3  
 "Management Information Systems," 3-2  
 "Management Information Systems Index," 3-7  
 Management of Information systems, 1-8  
 management planning, 12-15  
 management and programing, 12-10  
 "Management Use of Computers," 8-6  
 "A Manager's Guide to Operations Research," 10-9  
 Mand, Martin Gary, 10-9  
 Manufacturers National Bank of Detroit, 9-6  
 "The Many Ways of Pert," 5-8  
 "Marketing and the Computer," 7-8  
 Martin-Marietta integrated system, 3-1  
 Martino, Dr. R. L., 7-6  
 Maryland National Bank, 11-6  
 Mass. Indemnity and Life Insurance Co., 12-11  
 "Master Files and Management Science," 4-10  
 mathematics teachers, 11-17  
 McConnell Aircraft Corp., 1-8  
 McCormick, Edward M., 7-2  
 McDonough, Adrian M., 11-5  
 McKean, R. K., 4-3  
 McKinsey & Co. Survey, 6-1; 9-2  
 McMahan, William H., 8-17  
 McMahon, Forrest P., and Layton L. Lamb, 2-7  
 Mc Nerney, John P., and John T. Garrity, 11-3  
 McQueen, Lt. Col. Verden, 9-6  
 Meacham, Alan D., and Van B. Thompson, 3-1  
 "Mechanics of Operating and Controlling the Computer System," 7-9  
 "Mechanization of Data Processing," 4-8  
 medical care, 4-3  
 medical research, 10-15  
 Meers, Richard E., 3-17  
 mental health prediction, 8-15  
 "A Methodolgy for Computer Selection Studies," 8-1  
 Meyers, William E., and Richard N. Schmidt, 12-10  
 Meyers, William E., 10-5  
 MICR, 5-5  
 "MICR: Current and Future Applications," 2-15  
 MICR-Shield, 7-19  
 microfilm inventory, 4-12  
 "Milking for Maximum Performance," 12-21  
 Mikesell, Bruce, 3-15  
 Milwaukee Railroad, 4-2  
 Minneapolis Gas Co., 12-17  
 "A Missing Link in Planning," 12-15  
 Missouri Pacific Railroad, 6-5  
 Mitchell, Kennedy, 11-10  
 Mitchell, R., 1-11  
 "Modern Data Handling Can Serve the Smaller Utility," 3-10  
 Mortgage Automation Co., 10-7  
 multi-processors, 11-13  
 Murlowski, Leo F., 12-17  
 Murray, Joseph A. 8-1  
 Myer, Ellis P., and Leonard D. Gross, 5-17  
 National Farmers Union Insurance Co., 1-5  
 National Referral Center, 12-25  
 "Nature and Purpose of Computer Process Control," 12-8  
 NCR Journal Plan, 3-18  
 NCR Transacter, 1-18  
 "The Need for Faster Computers," 8-9  
 "Needed: A modular Software System," 8-12  
 "New Computer Catalogs Millions of Supply Items," 7-14  
 "New Data Processing Methods Automate Accounting for Two Million Credit Customers," 2-7  
 New Haven, Conn., 11-10  
 "A New Systems Concept for Retail Automation," 3-18  
 "New 1030 DCS Features Unique Input Option and Two-Way On-Line Communications with Computer," 9-10  
 "New York Bank Initiates Electronic 'On-Line' System," 3-12  
 newspaper typesetting, 10-11  
 newsprint, 6-10  
 non-impact printing, 12-24  
 "Office Automation and the Industrial Engineer," 9-5  
 O'Hara, P. N., and J. S. Campbell, 4-9  
 Ohio State Life Insurance Co., 5-5  
 OMNITAB, 4-12  
 on line-real time, 1-12  
 on-line system, 3-12  
 "On Retrieval System Theory," 10-10  
 "On Running Parallel," 5-12  
 operating EDP department, 7-9  
 "Operation Changeover: A Large Federal Credit Union Installs The First Burroughs Computer," 10-9  
 operations research, 7-16; 10-9  
 Opler, Ascher, 7-10  
 optical character standards, 12-7  
 "Optical Information Processing," 9-10  
 "Optical System Reads Printed Data," 11-8  
 Orange Coast College, 12-22  
 Orchard-Hays, William, 2-3  
 order control, 2-8  
 "Organization and Administration of Electronic Data Processing--A Functional Approach," 4-10  
 organization study, 8-8  
 "Organizing EDP for Internal Control," 3-14  
 "The Origin of PERT," 3-16  
 O'Shaughnessy, Dewes & Klein, Inc. 3-9  
 "Our Computer Wants You!" 12-16  
 "A 'Packaged' Program," 3-9  
 parallel operations, 12-6  
 parallel runs, 5-12  
 Patrick, Robert L., 8-12  
 payroll, 10-11  
 J. C. Penney, 1-4; 6-8  
 Pennsylvania Railroad, 5-16  
 The Peoples Gas Light and Coke Co., 2-16; 3-10; 9-9  
 "Performance Standards for Programming," 12-7  
 "Peripheral Data Processing," 12-4  
 Perlman, Justin A., 5-14  
 permuted indexes, 7-2  
 Perrott, Robert S., 8-1  
 personality simulation, 9-4  
 personnel, 10-16  
 personnel re-placement, 1-2  
 personnel selection, 3-3  
 personnel selection by computer, 12-16  
 PERT, 3-15, 16; 5-8  
 "PERT-A Dynamic Approach To Systems Analysis," 5-7

- "PERT: A New Management Planning and Control Technique," 3-19
- "PERT and CPM: New Planning Tools for Purchasing Management," 8-17
- "PERT and the Role of the Computer," 12-15
- "PERT as an Analytical Aid for Program Planning--Its Payoff and Problems," 2-9
- "A PERT Case History: Unity Among Defense Contractors," 2-10
- PERT/COST, 8-19
- PERT/CPM instruction, 4-12
- PERT for programming, 10-13
- "PERT Pays in Planning," 5-6
- "PERT: Planning Tool for Credit Unions," 7-18
- "PERT--the Powerful Planning Tool," 12-16
- Phelps, H. Sheldon, 7-18
- Philadelphia Electric Co., 3-11
- "Photographic Data Processing," 9-8
- physical site planning, 3-5
- Physicians' Services, Inc. of Ontario, 4-3
- Pittsburgh Steel Co., 12-22
- "The Plan Behind UAL's Data Processing," 12-12
- "Plan Better for Electronic Data Processing," 3-4
- planning by management, 12-15
- "Planning Your Computer Installation as an Investment," 9-2
- Plant, Harold, 7-13
- Plette, William S., 1-17
- Pocock, J. W., 2-9
- point-of-sale, 1-3
- police, 6-24
- "The Politics of Biomedical Information Systems," 11-17
- Pollack, Solomon L., 5-11
- Pool, Ithiel de Sola, 5-9
- "A Portrait of the Computer as a Young Clinician," 8-15
- Postley, John A., and T. Dwight Buetell, 2-11
- Potts, W. F., 3-15
- "Powerful Tools Speed Demand Deposit Accounting," 1-8
- "Practical Slants on Operations Research," 7-16
- "Pre-Authorized Checks and MICR," 5-5
- "Pre-Installation Consideration in Electronic Data Processing," 11-4
- "Preliminary Cost Comparison of Technical Training by Conventional and Programmed Learning Methods," 12-25
- preventive maintenance, 6-13
- printing, 9-8
- prison school in EDP, 2-19
- "Proceedings of AL PUR COM Symposium," 3-7
- Proceedings of DPMA Conference, 7-6; 10-4
- Proceedings of Symposium at International Computation Centre, 4-11
- "Proceedings of the First Annual Conference on Automation and Personnel Administration," 1-18
- "Proceedings of the 1962 International Data Processing Conference (DPMA)," 1-17
- Proceedings, SPA, 10-4
- process control, 4-4; 10-3; 12-8
- production control, 1-4, 5; 2-6
- production scheduling, 9-8
- "Production's New Brew: Instant Data," 12-4
- "Profit Center Income and Expense Analysis in Depth-Via Computer," 5-3
- "Profit Growth Via Information Systems," 7-4
- "Profits or Headaches from Computer Services?" 12-20
- program conversion, 7-10
- program packages, 1-18
- programed instruction, 3-19; 7-6
- programed learning of computer operation, 10-14
- programer effectiveness, 11-15
- programing, 2-1; 4-12
- programing languages, 1-16; 6-23; 7-18
- programing performance standards, 12-7
- programming training, 7-11
- "Programmed Instruction For Computer Programming," 5-12
- "The Programmer Encounters Auditing," 12-14
- "Programming and Coding Digital Computers," 10-12
- "Programming Control by Project Schedule," 5-2
- "The Programming Gap in Real-Time Systems," 5-10
- "A Programming Glossary for NAREC Users," 4-12
- "Programming the IBM 1401," 1-17
- "Programming the IBM 7090: A Self-Instructional Programmed Manual," 7-11
- "Programming the IBM 1620," 4-13
- programming self-instruction, 5-12
- "Programming Systems," 3-14
- "Programming Systems For Electronic Computers," 1-16
- "Proper Inventory of Data Processing Equipment," 10-8
- Providence College, 10-14
- Provident Institute for Savings in the Town of Boston, 11-9
- psychological testing by computer, 6-13
- Public Service Company of New Mexico, 3-10
- publishing automation, 3-11
- "Punch Card Cheques Keep Down Costs," 4-3
- "'Purchamation' Comes to ASO," 12-20
- purchasing function, 3-7; 7-13; 8-13, 17; 9-8; 12-19, 20
- Purdy, Alan B., 9-3
- "Putting Kodak in the Picture," 3-13
- "A Quantitative Approach to Equipment Comparison," 12-5
- railroad-bank standards, 8-11
- "Railroad Drafts Redesigned to Meet MICR Standards," 8-11
- railroad traffic analysis, 4-2
- railroad training program, 8-7
- railroads, 7-15; 9-7, 10
- "Random Access Equipment--Its Effect Upon Accounting," 2-13
- random processing, 6-20
- "Reading List," 3-20
- real time, 1-12; 9-3, 6; 12-5
- real-time programming, 5-10; 12-1
- "A Realistic Appraisal of Data Processing," 9-1
- Reck, A. S., 3-9
- redundant automatic systems, 7-19
- "Reformatory Course gets Professional Recognition," 10-18
- Reistad, Dale L., 8-10; 12-13
- Reistad, Dale L., and Neal J. Dean, 5-5
- remote data collection, 12-4
- re-ordering system, 3-8, 9
- replacing computers, 6-4
- "Report On Process Computer Control," 4-4
- "A Report on the Second National Law and Electronics Conference," 4-5
- research report on EDP, 3-2
- resource information, 10-15
- "Responsibility Accounting," 12-18
- retail EDP, 1-3, 4; 2-9; 3-18; 5-4; 6-6, 8, 9, 24; 9-8; 10-9; 11-9, 10
- retail ordering system, 3-9
- retraining, 6-5; 10-14
- "Revolution in Office Work--Meaning for Jobs, Businesses," 7-7
- Riche, Richard W., and James R. Alliston, 7-4
- Richmond, Phyllis Allen, 4-5
- Rinfret, A. William, 11-4
- "Ring up A Sales Report," 1-3
- Rivett, Patrick, 10-9
- Roberts, Arthur L., 1-13
- Robinson's Department Store, 1-3
- "The Rochester Story," 4-7
- Rogers, James, 1-14
- "The Role of the Computer in Future Instructional Systems," 8-19
- "Role of Computers in Industrial Process Control," 10-3
- "The Role of Computers in Retail Inventory Management," 9-8
- "The Role of the Multi-Processor System," 11-13
- route accounting, 12-21

- Rudy, Harry S., 12-6  
 Rueckel, R. W., 5-5  
 "Running Parallel," 12-6  
 Russia, 7-8  
 Russian report on automatic programming, 7-19  
 Ryder, Ambrose, 9-15  
 SAAB Computer, 3-19  
 The Safe Manufacturers Association, 2-16  
 "Salary Administration For Data Processing Personnel," 1-11  
 salary survey, 8-8; 9-4  
 sales analysis, 2-9  
 Salvino, S. M., 9-9  
 Savage Shoes, Ltd., 3-8  
 Saxon, James, 7-11  
 Saxon, James A. and William S. Plette, 1-17  
 scanner, 6-23  
 scanner for railroad cars, 5-15  
 "Scanning the Gas Bill," 2-16  
 scanning railroad car number codes, 6-22  
 scheduling, 6-13  
 scheduling maintenance, 3-13  
 "Scheduling Production Components According to Delivery Needs," 9-8  
 Schmidt, Richard N., and William E. Meyers, 10-5  
 Schneider, Robert T., 9-3  
 school administration, 1-6  
 school data processing, 2-18  
 school data processing service, 10-15  
 science and law, 8-5  
 "Scientific Management Methods Now Extended to Retail Grocer," 12-18  
 Scotchlite identification strips, 6-22  
 Schmidt, Richard N., 12-10  
 Schultheiss, Louis A., Don S. Culbertson, and Edward M. Heiliger, 4-6  
 Schwartz, M. H., 4-10  
 "Scientific Management For Her Majesty," 1-4  
 secretarial training and EDP, 12-23  
 security analysis, 12-19  
 selecting a computer, 8-1  
 self-teaching programming manual, 7-11  
 "Semi-Automated Stock Control System," 1-4  
 service bureaus, 7-7; 10-7  
 service centers, 11-8  
 "\$17,000,000 Bank Finds Full Automation Feasible," 3-12  
 Shapiro, Stanley J., 7-8  
 Shaw, Ralph R., 7-1  
 Sherman, Philip M., 10-12  
 Shober, John A., 8-1  
 Siemers, M. E., 11-12  
 Silvern, Gloria M., 5-12  
 SIMPAC, 3-16  
 "Simulated Design of a Hospital Patient Data System," 8-16  
 simulation, 5-7, 9; 7-17  
 simulation of bank investments, 6-17  
 6-17  
 simulation of human thinking, 6-20; 11-4  
 simulation of personality, 9-4  
 simulation of systems, 3-16  
 Simulmatics Corporation, 5-9  
 simulating job shop schedules, 6-16  
 Skaggs, Bruce, 5-3  
 Skaggs, Dr. Bruce, and Marshall Spangler, 7-2  
 Sleeper, Richard C., 11-1  
 Sloma, Richard S., 4-10  
 "The Small Company and The Small Computer," 12-11  
 Smith, Edwin D., 5-6  
 Smith, Leighton F., 9-9; 10-2  
 Smith, William H., 4-1  
 Smith-Douglass Co., 1-5  
 Smith, Kline & French Laboratories, 8-1  
 software modules, 8-12  
 Solo, Robert A., 8-3  
 Sort Symposium, 8-19  
 source data automation, 12-4  
 "Source Data Automation Program," 12-12  
 Southern Union Gas Co., 12-18  
 Soviet intelligent machines, 7-8  
 Spangler, Marshall, 7-2  
 Spencer, Milton H., 5-7  
 Sperry Gyroscope Co., 2-10  
 Spiegel's, 2-7  
 Sprague, Richard E., 1-12  
 Sprowls, R. Clay, 7-11  
 St. Francis Hospital, 11-11  
 standard information code, 12-8  
 "Standards in Computers and Information Processing," 12-7  
 Starley, John R., 9-6  
 Statland, Norman, 8-14  
 status of EDP, 9-1  
 Stern, Mark E., 2-11  
 Stewart, J. K., 12-1  
 Stilian, Gabriel N., 9-3  
 stock brokers' automation, 8-14  
 stock control, 1-4  
 stock evaluation, 12-19  
 stock exchange information system, 11-7  
 Stolle, John F., 12-16  
 Stover, Carl F., 7-3  
 "A Study in the Applications of Teaching Machines," 8-17  
 "Study of Redundant Automatic Systems," 7-19  
 subscription processing, 9-7  
 survey of computer experience, 6-1  
 survey of programming languages, 7-18  
 Sylvania Applied Research Laboratories, 6-22  
 Sylvania railroad car identifier, 5-15  
 "Symbolic Languages in Data Processing," 4-10  
 symbolic programming, 7-19  
 Syracuse University, 5-6  
 "Systemetrics," 5-9  
 system design, 1-18; 3-1; 11-12  
 "System Design for Computer Applications," 10-1  
 System Development Corporation (SDC), 5-17; 6-5; 8-16  
 Systems and Procedures Association, 10-4  
 "A Systems Auditor is Qualified," 8-3  
 "Systems for Total Management," 11-12  
 "Systems Integration Made Their Computer Pay Off," 1-5  
 systems men and auditors, 10-6  
 systems proposals, 7-5  
 tape protection, 8-13  
 "Teaching Behavioral Scientists How to Use Their Brains," 11-16  
 teaching with a computer, 4-11; 8-19  
 teaching machines, 6-23; 8-17  
 technological change, 8-3, 4  
 "Technology and Law--A Look Ahead," 7-3  
 Telebank service, 5-15  
 "Teleprocessing the Pay Packet," 10-11  
 Terminal Railroad Association of St. Louis, 4-3  
 Texas Small Business Game, 1-14  
 text book in EDP, 10-5  
 "Textbook On Mechanized Information Retrieval," 4-4  
 textbook on programming, 10-12  
 Textile Banking Co., 3-13; 6-11  
 Thalhimers, 6-6  
 Thompson, Van B., 3-1  
 Thorne, Marian H., 12-23  
 "Those Who Can--Retrain," 10-14  
 Thurston, Philip H., 1-8  
 "To Obtain Accurate Data," 11-14  
 Toan, Arthur B. Jr., 1-10  
 Tondow, Dr. Murray, 4-13  
 "Top Management and Computer Profits," 9-2  
 "Total Automation Comes to Purchasing," 7-13  
 "Total Command Control Through Computers?" 9-6  
 total management system, 7-6  
 total system, 1-5; 3-2; 6-3, 14; 10-2; 11-4, 12; 12-12  
 total system approach to information retrieval, 3-17  
 "'Total System' is Triggered by Order Entry," 12-22  
 total system study, 8-8  
 "Total Systems," 3-1  
 "Toward Complete Management Information Systems," 12-12  
 traffic, 11-16  
 train path timing, 6-14  
 training high school students, 8-19  
 training for EDP, 2-19; 6-5; 8-7; 12-22  
 Trans-Canada Air Lines, 7-18  
 "Trends in Computer Applications," 4-9  
 TRIM by General Electric, 6-23  
 "TRRA Tests New Car Accounting System," 9-7  
 Trumpler, Frederick W., and Harvey Golub, 12-5

- "The Turnover Question," 10-16  
type setting by computer, 3-11;  
6-10; 10-11
- "Uncertainties of PERT," 3-15
- Union Dime Savings Bank, 3-12
- Union Electric Co., 3-9
- United Air Lines, 8-13; 12-12
- "United Air Lines Thwarts Tape  
Disaster," 8-13
- Uni-Tote, 1-3
- university administration  
automation, 4-8
- university admissions automation,  
5-6
- "University and College Computation  
Center Survey," 10-15
- University of Pittsburgh Health  
Law Center, 4-5
- "An Unusual Approach to a Bank  
Computer Program," 9-6
- "The Use of Computers in Europe,"  
11-5
- "Use of Punched Tape in Preparing  
Tax Returns," 3-11
- used computers, 2-14
- "The Used Computer Market," 2-15
- utilities, 2-16; 3-9, 10, 11; 6-16;  
9-9; 12-17, 18
- "The VA Data Link," 12-21
- VA Research Support Center,  
2-18
- Vair, James W., 3-2
- Van Horn, Richard L., 10-12
- Vandenberg, Steven G., 11-16
- Veterans Administration, 12-21
- Vickery, B. C., 10-10
- VIDEOSCAN, 6-23
- "Visual Input to Computers,"  
11-8
- Vournas, Harry C., 8-7
- Wagner, Harvey M., 7-16
- "Walt Disney's Newest Program,"  
1-5
- Ward, James A., 8-9
- Ware, Willis H., 11-6
- Waterbury National Bank of  
Connecticut, 1-6; 10-7
- Waukesha State Bank of  
Wisconsin, 1-8
- Weber, Philip H. & Associates,  
Inc., 8-8; 9-4
- Weber, Philip H., 1-11
- Webster, Edward, 12-24
- Weiss, Harold, 12-14
- Weitzman, Joseph, 8-1
- Well, William D., 7-17
- "We 'Pretested' Our Decision,"  
11-9
- Westinghouse Computer project  
scheduling, 5-2
- Westinghouse Electric Corp.,  
10-2; 11-12
- West Point computer training,  
12-23
- "WFF 'N PROOF-- The Game of  
Modern Logic," 3-6
- "What Are We Looking For?" 4-5
- "What Can EDP Do for  
Purchasing?" 7-13
- "What the Computer Can Do for the  
Small Company," 12-19
- "What Every Schoolman Should Know  
About Data Processing-Part II,"  
1-6
- "What Should Bank Management  
Expect from Automation?" 10-6
- "What You Should Know About  
In-Plant Data Collection  
Systems," 2-17
- "What Will Automation Do To  
Purchasing?" 3-7
- "What's New in Data Transmission,"  
11-7
- "What's Wrong With Business  
Games?" 1-13
- "What's Wrong with EDP  
Co-operatives?" 10-7
- White, Joseph N., 12-22
- Whittingham, Harry E. Jr.,  
9-3
- "Who Should Control Information  
Systems?" 1-8
- "Who Will Be First With ACI?"  
9-10
- "Who Will Fill The Information  
Gap in System Design?" 1-18
- wholesale inventory system, 3-8
- Williams, Quincy N., Robert S.  
Perrott, Joseph Weitzman,  
Joseph A. Murray, and John  
A. Shober, 8-1
- Willey, Robert E., 8-17
- Williams, Harter W., 9-7
- Winter, Charles F., 12-4
- Wofsey, Marvin M., 5-11
- Wolf, Ellis, 2-10
- Wood, Marle W., 5-14
- "A Workbook in PERT Principles,"  
1-18
- Worthington, William, 8-6
- Wright, John, 3-7
- Wright, Jack, 12-11
- Yilmaz, Huseyin, 9-10
- Zey, Henry F., 10-8
- Ziessow, B. W., and P. J.  
Camillo, 7-9
- Zinser, Alan J., 1-6; 10-7
- Zivkovich, Paul, 3-13



